



# JOINT BOARD OF MANAGEMENT

Wednesday, December 16, 2020

9:00 AM

Virtually in Zoom

## AGENDA

**A. Call to Order:**

**B. Disclosures of Pecuniary Interest:**

**C. Approval of Minutes:**

Minutes of the meeting of the Union Water Supply System Joint Board of Management Meeting held Tuesday, November 17, 2020  
Pages 2 - 5

**D. Business Arising Out of the Minutes**

**E. Items for Consideration:**

1. UW/30/20 dated December 11, 2020 re: Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 11, 2020  
Pages 6 - 8
2. UW/31/20 dated December 8, 2020 re: Draft 2021 UWSS Operations and Capital Budget Report  
Pages 9 - 18  
  
2021 UWSS Draft Operations and Capital Budget Tables and Details  
Pages 19 - 24  
  
UWSS 6 Year Capital Plan Tables and Details  
Pages 25 - 28
3. 2021 Dates for Union Water Supply Joint Board of Management Meetings  
Page 29
4. UW/32/20 dated December 11, 2020 re: Payments from November 16 to December 11, 2020  
Pages 30 - 33

**F. New Business:**

**G. Adjournment:**

**H. Date of Next Meeting: January 20, 2021, Virtually in Zoom**

/kmj



**JOINT BOARD OF  
MANAGEMENT**  
Tuesday, November 17, 2020  
9:00 AM  
Virtually in Zoom

## **MINUTES**

**Members Present:** Mayor MacDonald (Chair); Deputy Mayor Verbeke, Councillors Hammond, Tiessen - Leamington  
Mayor Nelson Santos (Vice-Chair); Deputy Mayor Queen,  
Councillors DeYong, Neufeld, Patterson - Kingsville  
Councillor VanderDoelen - Essex  
Councillor Walstedt - Lakeshore

**Members Absent:** Councillor Dunn - Leamington

**Staff Present:** Kevin Girard - Essex  
John Norton, Andrew Plancke, Shaun Martinho - Kingsville  
Albert Dionne - Lakeshore  
Shannon Belleau, Nelson Carvalho - Leamington

**OCWA Staff  
Present:** Dale Dillen, Ken Penney

**Call to Order:** 9:01 am

**Disclosures of Pecuniary Interest:** none

**Adoption of Board Minutes:**

**No. UW-52-20**

**Moved by:** Councillor Hammond

**Seconded by:** Deputy Mayor Verbeke

That Minutes of the UWSS Joint Board of Management meeting of Wednesday, October 21, 2020 be received.

Carried

**Business Arising Out of the Minutes:**

There was none.

**Report UW/28/20 dated November 13, 2020 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to November 13, 2020**

The Manager takes a moment to recognize Councillor Jacobs, who recently passed away unexpectedly. He appreciated Councillor Jacobs long term work with the UWSS Board, as well as his humour. He will be missed.

The Manager reviews his report with board members and notes a much shorter agenda this month, as last month's agenda was heavy. He notes that DiMenna Excavating has completed the pond cleanout at the Low Lift. The high water levels contributed to the need for the cleanout.

The SCADA project is finally complete and working well. The Operations Staff is going through a deficiencies list, which will take about six (6) months. This project has been a challenge to staff with a lot of changes and challenges to work through as well as steep learning curves. The staff are happy that this project is now complete.

The new security system is scheduled to be completed in the next week or so. Unfortunately there was an issue with the integration of the new SCADA system sharing the same communication system as the new security system. This has been corrected as the Manager did not want both systems on the same communication system for security reasons. The hardware has been installed for this project.

The Manager indicates that the UWSS WTP front area improvements including the parking lot expansion have been delayed until the Spring of 2021. At this point in the year the asphalt season has come to an end, therefore this project will be tendered in the early Winter and the work completed in the Spring. He also notes that the Road Use Agreement required by the County was not yet in place.

The Manager reminds the members of the board that he working with Associated Engineering (AE) regarding the DAF project for Clarifier No. 2. He notes that a site visit has been completed. Napier-Reid attended the site and brought with them some interesting equipment to demonstrate to staff. This tender package is expected to be completed early in 2021, with construction set to begin in October 2021, once the lower flows can be experienced at the WTP.

Construction for the new lab is underway. The walls have been erected and electrical work is being completed by OCWA staff this week. OCWA and UWSS are working in conjunction to source some of the equipment needed. The hope is to have this space operational by the end of January 2021. There will be space to allow for the technicians as well as the sampling staff.

The Manager informs the Board of a few smaller items including that the new CO2 system is having walls erected around it, because it can be noisy at times. The softstart for pump #8 was failing, therefore, a new one has been purchased and should be installed by the end of November. A flow meter for clarifier #1 has been purchased, with installation scheduled to be completed by the end of the week. A new awning has been installed by Suntailored Awnings over the emergency shower near the chlorine building.

The Manager informs the Board that correspondence was sent to all four (4) CAOs regarding the allocation of the remaining UWSS treatment capacity. At this point he has not received feedback from all four (4) municipalities. He is waiting to receive all feedback prior to making a recommendation to the Board. In the meantime it might be prudent to hold off on any new applications.

Finally, he notes that flows continue to trend upwards.

The Chair asks the Manager if there is a hold up at the County level regarding the easement that members could assist with. The Manager notes that the delays are experienced by all three (3) parties, mostly related to COVID-19.

Deputy Mayor Verbeke asks if the Manager can acknowledge which municipalities have responded to his letter. The Manager notes that he has received information from Kingsville, partial information from Leamington has been received, and there has been a discussion with Lakeshore.

There is a discussion regarding the timing of a possible motion from the Board regarding the allocation of water. Deputy Mayor Queen suggests UWSS should put a motion in place, however, the Manager asks that the Board allow more time for municipalities to respond. He proposes bringing information back at the December meeting.

#### **No. UW-53-20**

Moved by: Councillor Tiessen

Seconded by: Councillor VanderDoelen

That report UW/28/20 dated November 13, 2020 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to November 13, 2020 is received.

Carried (UW/28/20)

#### **Report UW/29/20 dated November 13, 2020 re: Payments from October to November 13, 2020**

#### **No. UW-54-20**

Moved by: Councillor Patterson

Seconded by: Councillor Walstedt

That report UW/29/20 dated November 13, 2020 re: Payments from October to November 13, 2020 is received.

Carried (UW/29/20)

**New Business**

The Manager indicates that he doesn't often like to speak about himself, but wanted the Board to know that he has been appointed to the position of President of the Canadian Water and Wastewater Association for the next term ending on November 2021. This position will bring notice of our area to the rest of Canada.

The Chair congratulates the Manager on behalf of the entire Board and notes that this Board is proud of this accomplishment and shows how well respected the Manager is within the water community.

**Adjournment:****No. UW-55-20**

Moved by: Mayor Santos

Seconded by: Deputy Mayor Queen

That the meeting adjourn at 9:23

Carried

Date of Next Meeting: Wednesday, December 16<sup>th</sup>, 2020, in zoom

/kmj

UW/30/20

**To:** Chair and Members of the Union Water Supply  
System Joint Board of Management

**From:** Rodney Bouchard, UWSS General Manager

**Date:** December 11, 2020

**Re:** Status Update of UWSS Operations & Maintenance Activities and Capital  
Works to December 11, 2020



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**Aim:**

To inform the UWSS Board about operational and maintenance activities and capital works projects for the Union Water Supply System since the last Board meeting on November 17, 2020.

**Discussion:**

The UWSS Manager conducts regular meeting with OCWA Operations staff in regards to on-going operations and maintenance programs for the UWSS facilities. The following provides an update on UWSS operations, regular maintenance and major maintenance and Capital Works at UWSS facilities:

1. Regular Maintenance on all process equipment and analyzers continue to be completed through OCWA's Workplace Maintenance Management System.
2. The softstart for Pump #4 at Cottam Booster Station was noted to be failing. A new softstart has been ordered and received and will be installed by OCWA maintenance within the next few weeks upon completion of other on-going maintenance activities.
3. Water treatment plant operators noted that the air wash valve actuator failed on Filter #7. The filter was taken out of service and a new valve and actuator combo were purchased. These were installed during the week ending Dec 4<sup>th</sup>. Also, a spare air actuator was purchased at the same time to mitigate filter down time if failure of air actuator occurs.
4. Nevro Pump and Mechanical of London, ON was retained to complete the install of the two flow meters for raw water lines #1 and #2. This work was complete during the week ending December 4<sup>th</sup>. OCWA maintenance staff will be installing the Rotork actuator and flow control valves during the week of December 14-18. Once the install is complete, leak testing of the valves and flow meters will be completed so that these raw water lines can return to service.
5. Filters #2 and #4 were taken out of service to allow the installation of new filter inlet valves. These were installed by OCWA staff during the week of December 7-11. Leak testing of the inlet valves was successful.

Re: UW/30/20 - Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 11, 2020

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6. SCADA Upgrade Project Update: This project is substantially complete and the system is fully operational. The SCADA integrator is addressing the deficiency list, all of which are minor.
7. The new security and access control system that was installed by Empire Communications is now active. The new camera monitoring system includes 29 cameras of which 21 are operating. The other 8 cameras have been installed and will be in operation once the communication system improvements are complete. The system also includes access control at 21 points (i.e. doors, gates, etc). The majority of these are active. A few are awaiting the communication upgrades.
8. The new laboratory construction is on hold due to scheduling and other unplanned issues with the contractor. It is anticipated that this work will resume in early January 2021.
9. A new tower and point to point radio antennas have been installed at the low lift for back up radio communication to the main plant. This back up system was implemented due to temporary failure of the fiber optic communication line in October 2020 that resulted in control issues between the treatment plant and low lift pumping plant.
10. The UWSS General Manager sent correspondence dated November 4<sup>th</sup>, 2020 to the CAOs of UWSS' owner municipalities in regards to allocation of remaining UWSS treatment capacity. The letter sought feedback from municipalities on the proposal to allocate the remaining treatment capacity to each owner municipality based on municipal system interest. Written correspondence has been received from The Municipality of Leamington and the Town of Kingsville. Both Leamington and Kingsville support the proposal. Administration staff at the Town of Essex have indicated that they will be providing a report to their Council in regards to this proposal. It is likely that the Town of Lakeshore will provide a report to their Council on this item as well.

The first chart shows comparative flows for 2016 through 2020 in Mega Litres (ML) and the second chart shows Millions of Imperial Gallons (MIG) for the period January 1<sup>st</sup> to December 9, 2020.

	2016	2017	2018	2019	2020
Flow to Date (ML)	14,804.00	14,672.35	15,599.92	16,216.88	18,392.75
Max Day (ML)	76.16	75.57	82.48	85.40	97.33
Min Day (ML)	19.49	20.73	23.56	20.13	25.44
Average Day (ML)	43.03	42.78	45.48	47.28	53.47
No of Days	344	343	343	343	344

Re: UW/30/20 - Status Update of UWSS Operations & Maintenance Activities and  
Capital Works to December 11, 2020

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	2016	2017	2018	2019	2020
Flow to Date (MG)	3,256.49	3,227.53	3,431.57	3,567.29	4,045.92
Max Day (MGD)	16.75	16.62	18.14	18.79	21.41
Min Day (MGD)	4.29	4.56	5.18	4.43	5.60
Average Day (MGD)	9.47	9.41	10.00	10.40	11.76
No of Days	344	343	343	343	344

Flows to date are up 2,175.87 ML (478.63 MIG) or 13.42% from last year. The 2020 flows to date are up 20.03% over the previous 4 year average

**Recommendation:**

That this report be received by the UWSS Board for information purposes.

Respectfully submitted,



Rodney Bouchard, Manager  
Union Water Supply System Joint Board of Management

/kmj



UW/31/20

TO: Chair and Members of the Union Water Supply System  
Joint Board of Management

FROM: Rodney Bouchard, Union Water Manager

DATE: December 8, 2020

RE: Draft 2021 UWSS Operations and Capital Budget Report



### **RECOMMENDATION**

That the Union Water Supply System Joint Board of Management (UWSS Board) adopts the Draft 2021 Operational and Capital Budget for the Union Water Supply System;

And further, that the UWSS Board adopts an increase of \$0.0258 per cubic metre for the UWSS Wholesale Rate. The new proposed UWSS Wholesale Rate for 2021 would be \$0.6716 per cubic meter.

And further, that the UWSS General Manager be provided the delegated authority to implement the 2021 UWSS Operations & Maintenance Budget and 2021 Capital Program.

### **REPORT HIGHLIGHTS**

- Potable water demand from UWSS is anticipated to be approximately 19,477,000 m<sup>3</sup> (4,285,900,000 imperial gallons) for 2021. This represents a 2% increase in water demand over 2020.
- An increase of \$0.0258 per cubic meter is proposed for the UWSS Wholesale Rate. The new proposed Rate 1 wholesale rate for 2021 would be \$0.6716 per cubic meter.
- UWSS Revenue for 2021 is estimated at \$13,578,000 of which \$13,081,000 is from wholesale of water to municipalities, \$405,000 from investment revenue, \$22,000 from Sundry Revenue and \$70,000 from municipal study revenue.
- Operational and Debt Service Expenditures for 2021 are estimated at \$8,572,000. This includes \$3,397,000 for OCWA Operations and Maintenance services and \$2,370,000 for the Sunlife Loan (former MFD Debt).
- A budget of \$430,000 has been established for proposed 2021 Operational Studies and Programs.
- 2021 Revenue versus Operational and Debt Service Expenditures are anticipate to result in a surplus of approximately \$5,006,000 for 2021 Fiscal Year;
- A Capital Program of \$8,155,000 is proposed for 2021; A draw of \$3,149,500 from the UWSS Reserves would be needed to fund the 2021 Capital Program.
- Projected total UWSS Reserves for January 1, 2021 are estimated at \$21,597,000

**BACKGROUND:**

Since the Transfer Order of January 2001, the Board is responsible for considering and approving an annual budget for the Union Water Supply System. The format of the budget is generally the same as that previously prepared for 2020.

This draft budget is being presented to the UWSS board for consideration and approval. The draft 2021 budget is outlined to provide details in regards to the following:

- Anticipated revenue for 2021 from wholesale of water to the partner municipalities;
- Anticipated operating expenditures for 2021 including estimated costs for operation of the system by the Ontario Clean Water Agency (OCWA), under its contract with UWSS;
- Proposed Capital Works program for 2021 for UWSS;
- Forecasted Operational Expenditures and Capital Works program for 2021-2025.

**DISCUSSION:**

The draft 2021 Budget documents have been prepared based on the discussions with the contracted operator, OCWA, in regards to operational budget, major maintenance needs, and existing operational issues that would require implementation of capital works to resolve. The Budget documents reflect the following:

- The operations and maintenance costs associated with the 5-Year Cost Plus Operations and Maintenance Agreement between UWSS and OCWA that came into effect on July 1, 2019;
- Capital Projects that were approved and initiated in previous years that are on-going into 2021.

Details regarding the budget components are discussed below.

**OPERATING EXPENDITURES**

Expenditures for the Union Water Supply System (UWSS) include *Fixed Expenditures* such as the OCWA operations contract, administration, and debt service and *Programs and Studies* that are proposed for 2021 to identify cost effective improvements for the operation of the UWSS. The total projected expenditures for 2021 is budgeted at approximately at \$8,572,000.

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Re: Draft 2021 UWSS Operations and Capital Budget

**Fixed Expenditures**

Fixed expenditures for the budget process include the OCWA Operations Budget, UWSS Administrative Budget, and Debt Service. The total fixed expenditures for 2021 is budgeted at \$8,142,120. The fixed expenditures consist of the following components:

OCWA Operations Budget:	\$3,396,906
UWSS Administrative Budget:	\$ 459,077
Residuals Ponds Maintenance:	\$ 200,000
CO2 Gas Bulk Purchase Contract:	\$ 100,000
Watermain Repairs:	\$ 100,000
Corrosion Monitoring Program:	\$ 50,000
Property Taxes:	\$ 150,160
Electricity and Natural Gas:	<u>\$ 1,315,600</u>
<i>Total Operations, Administrative, Energy:</i>	<i>\$5,771,743</i>
Debt Service:	
Sunlife Debt (MFP Debt):	<u>\$2,370,377</u>
<i>Total Debt Service:</i>	<i>\$2,370,377</i>
<b>Total Fixed Costs:</b>	<b>\$8,142,120</b>

**Programs and Studies**

A number of Programs and Studies are included in the 2021 Budget. These studies are designed to achieve one of the following goals:

- Assess and improve operational processes to improve cost efficiencies potentially resulting in decrease of fixed operations costs such as electricity costs and chemical costs;

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- Evaluate water demand and water usage by various sectors including residential, commercial, industrial, and food processing/greenhouse industry to assess future capital infrastructure needs;
- Evaluate water quality to for potential issues such as toxic algae in raw water, nitrification issues in larger distribution systems, etc.

For the 2021 budget year, \$430,000 has been allocated to Programs and Studies. The following studies are proposed or currently in place.

UWSS Master Servicing Plan Study	\$145,000
Lake Erie HAB Monitoring Project:	\$100,000
Emergency Water Servicing Study:	\$115,000
New WTP Reservoir #3 Study:	\$ 30,000
Backup Power Generation/Energy Study:	<u>\$ 40,000</u>
Total:	\$430,000

### Operating Expenditure Summary

Fixed Expenditures:	\$8,142,120
Programs and Studies:	<u>\$ 430,000</u>
Total Operating Expenditures for 2020:	\$8,572,120

## REVENUE

Revenue for the budget process is mainly based on wholesale billings from the sale of potable water to the 4 municipal owners. A much smaller component of revenue is based on miscellaneous revenue such as investment income and sundry income. The total estimated revenue for 2021 is \$13,578,000

### Wholesale Water Revenue Summary

Wholesale water revenue is based on annual water usage by the 4 owner municipalities and the wholesale water rates.

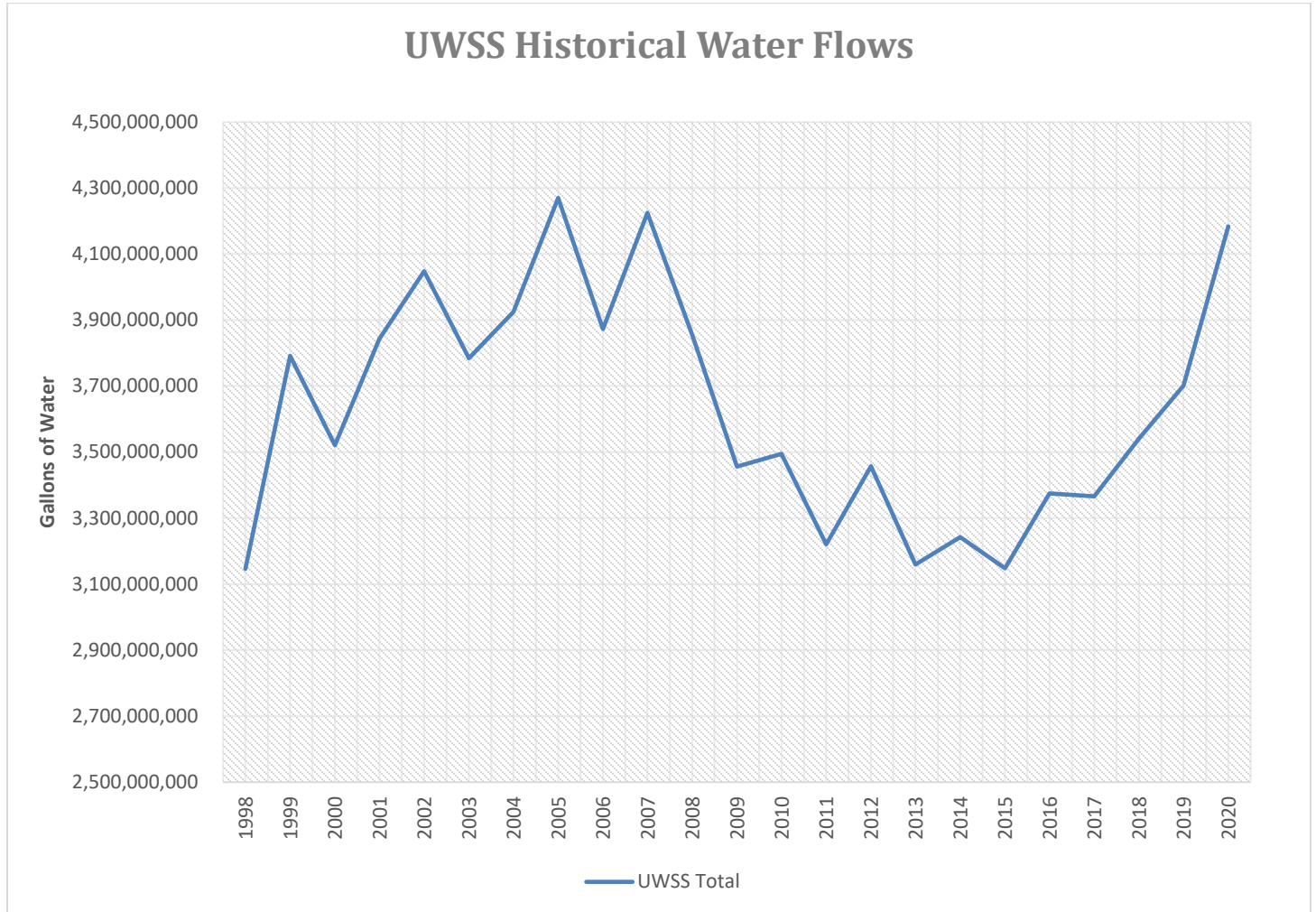
### Water Usage

The projected water “usage” by municipal owners for 2021 is 19,477,000 m<sup>3</sup> (4,284,940,000 imperial gallons), which is based on a 2% increase in water demand over 2020.

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Figure 1 depicts the total UWSS water usage trend from 1998-2020 (value for 2020 is a projected total).

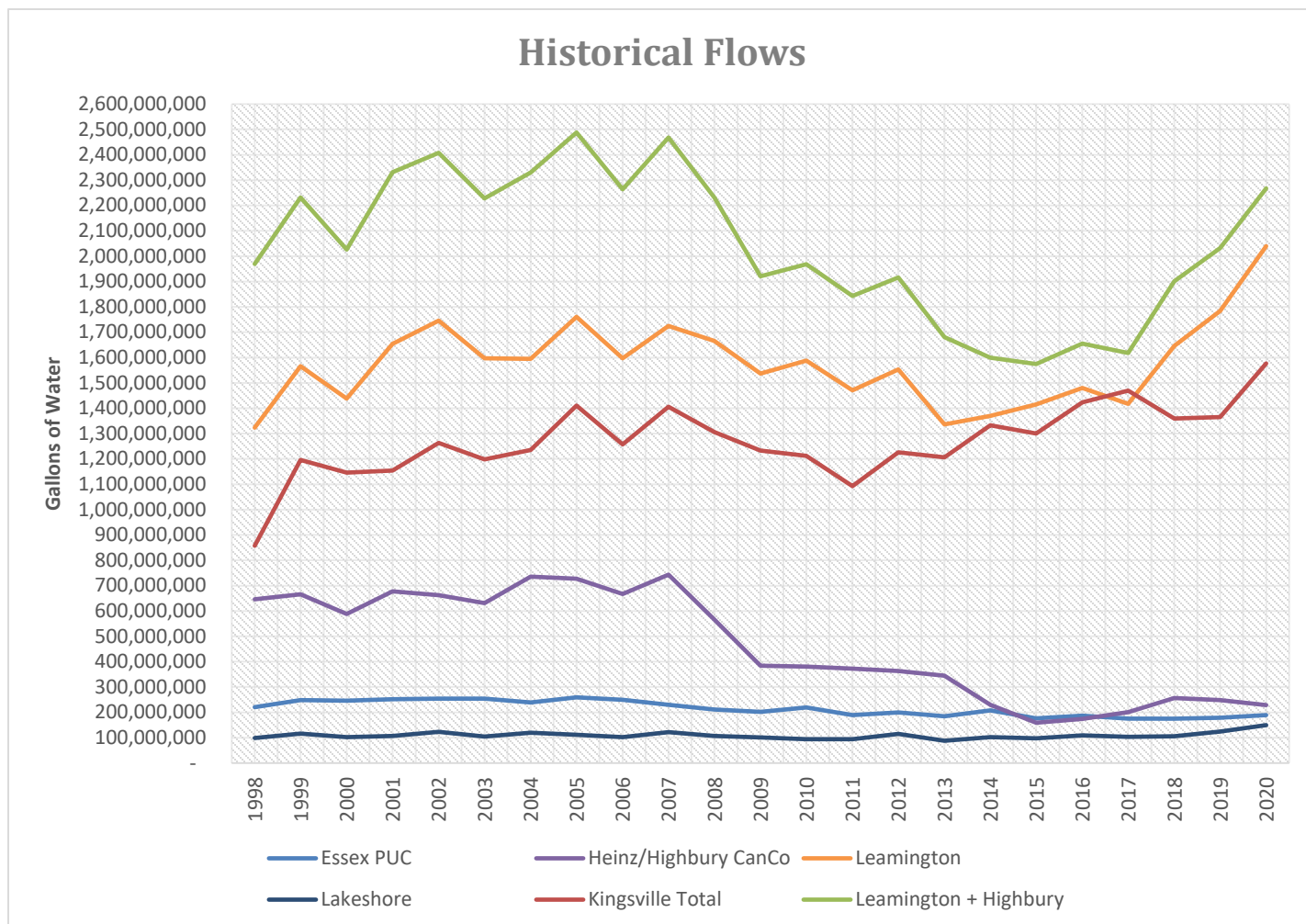
**Figure 1**



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Figure 2 depicts the water usage trend by each municipal partner from 1998-2020.

**Figure 2****Wholesale Water Rates**

For the 2021 budgeting process, it is proposed that an increase of \$0.0258 per cubic meter be applied to the UWSS wholesale rate. This would result in a 2021 UWSS wholesale rate of \$0.6716 per cubic meter to be applied as of January 1, 2021.

Based on the anticipated water demand of 19,477,000 m<sup>3</sup> of potable water for 2021, the wholesale rate water revenue is estimated at:

**Wholesale Rate Revenue Total:****\$13,080,753**

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**Miscellaneous Revenue**

Miscellaneous revenue includes income from investments and sundry income.

Investment (interest) income:	\$ 405,000
Municipal Study Revenue:	\$ 70,000
Sundry revenue:	<u>\$ 21,848</u>
<b>Total Misc. Revenue:</b>	<b>\$ 496,848</b>

Sundry revenue is revenue received from various sources such as lease of space on water towers for telecommunications equipment. The Municipal Study Revenue is revenue that UWSS will receive from Windsor Utilities for a \$140,000 joint study that UWSS is funding. This study is being conducted on a 50% cost share and UWSS will invoice Windsor Utilities for 50% of the study costs.

**Revenue Summary**

Wholesale Rate Revenue:	\$13,080,753
Miscellaneous Revenue :	<u>\$ 496,848</u>
<b>Total Estimated Revenue for 2021:</b>	<b>\$13,577,601</b>

**REVENUE VERSUS OPERATING EXPENDITURES**

A comparison of Revenue versus Expenditures for 2021 budget is as follows. It should be noted that the total estimated expenditures also include the proposed budget for operational Programs and Studies of \$430,000.

Total Estimated Revenue:	\$13,577,601
Total Estimated Expenditures:	<u>\$ 8,572,120</u>
<b>Surplus/(Deficit):</b>	<b>\$ 5,005,481</b>

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Re: Draft 2021 UWSS Operations and Capital Budget

**CAPITAL PROGRAM**

The proposed Capital Program for 2021 is budgeted at \$8,155,000.

**Capital Works:**

The following major capital works projects are proposed for 2021:

Low Lift Pump #3 Major Maintenance:	\$ 35,000
Low Lift Roof Replacement:	\$ 75,000
Low Lift Main Electrical/Transformer Upgrades:	\$ 200,000
Filter Aid System Upgrade:	\$ 60,000
Filter #2 Rehab:	\$ 300,000
Filter #4 Rehab:	\$ 300,000
New Highlift #7 Pump:	\$ 175,000
Communication System Upgrades:	\$ 35,000
PLC Upgrades (Low Lift, Cottam Booster, Generator B):	\$ 150,000
Electrical Upgrades:	\$ 70,000
Cottam Booster Mixing System:	\$ 75,000
Kingsville Water Tower Rehabilitation:	\$1,300,000
Essex Water Tower New Cathodic Protection System:	\$ 40,000
Distribution System Components:	\$ 150,000
Master Water Meter Upgrades:	\$ 50,000
Laboratory Upgrades:	\$ 75,000
Treatment Plant Admin Area Improvements:	\$ 30,000
Clearwell #1 Inlet Rotork - New:	\$ 20,000
Wastewater Pump - New Backup Pump:	\$ 50,000
Grounds Improvements:	\$ 170,000
Fencing - Water Treatment Plant and Leamington Tower:	\$ 20,000
Ammonia Building Retrofits:	\$ 125,000
DAF System Design/Construction - Clarifier #2:	\$4,500,000
Kingsville Water Tower New Utility Building:	<u>\$ 150,000</u>
<b>Total Capital Works for 2021:</b>	<b>\$8,155,000</b>



December 8, 2020

Re: Draft 2021 UWSS Operations and Capital Budget

**BUDGET SUMMARY**

The proposed 2021 budget is summarized as follows:

<b>Total Estimated Revenue:</b> (includes wholesale rate revenue and miscellaneous revenue)	<b>\$13,577,601</b>
<b>Total Estimated Operating Expenditures:</b> (includes Operations Contract, UWSS Admin, Programs & Studies)	<b><u>(\$8,572,120)</u></b>
<b>Revenue versus Operating Expenditures:</b> Surplus/ (Deficit)	<b>\$5,005,481</b>
<b>Capital Program:</b> (includes Capital Purchases and Capital Works)	<b><u>(\$8,155,000)</u></b>
<b>NET SURPLUS/ (DEFICIT) :</b> (Operating surplus/deficit less Capital Program)	<b><u>(\$3,149,519)</u></b>

The capital program for 2021 will be funded through the UWSS Reserves.

**CASH /RESERVES VERSUS DEBT**

Cash and Reserves for UWSS as of January 1, 2021 are forecasted to be approximately \$21,597,000 dollars. It should be noted that of the estimated \$21,597,000 in available cash and reserves for 2021, approximately \$10,785,000 are dedicated to UWSS Settlement Reserve, which is associated with the 2006 settlement that was reached regarding the MFP debt. Although the UWSS Board has authority to use these funds as it sees fit, the intent is to keep these funds in an interest bearing investment funds to offset the annual MFP Debt obligation and to function as a rate stabilizing Reserve Fund. These funds are currently invested in a GIC that will come to term in 2022 but are fully liquid and accessible if needed.

The 2021 Operating and Capital Budget projects a Net Deficit of \$3,149,519 for 2021 year end. Thus, it is anticipated that UWSS reserves at the end of 2021 will decrease to approximately \$18,725,000

Based on debt repayment schedules, the total UWSS long term debt balance for as of January 2021 is \$10,678,259 and consists solely of the Sunlife Loan (aka former MFP Debt) that has a term date of 2026. At the end of 2021, this debt will decrease to \$9,375,773.

December 8, 2020

Re: Draft 2021 UWSS Operations and Capital Budget

### **PROPOSED 6-YEAR CAPITAL WORKS PLAN**

The UWSS General Manager, with assistance and input from OCWA Operations Staff has developed a proposed 6-year Capital Works Plan (2021-2026) for the UWSS. This Plan reflects the UWSS Manager's intention to undertake upgrades and improvements to the UWSS to address lifecycle replacement/upgrade issues and to improve water treatment, storage and transmission efficiencies.

The Proposed 6-Year Capital Plan is included as Appendix B to this Report. The Plan identifies the proposed works for each year and the anticipated value of the works. The total proposed rate and Reserve funded capital works expenditures for 2021-2026 are projected at \$32,175,000. Proposed debt funded capital works for this period is valued at \$33,000,000 and include proposed Reservoir #3 (\$25,000,000) and upgrade of 12-inch watermain to Cottam (\$8,000,000).

### **CONCLUSIONS:**

It is the UWSS General Manager's opinion that the Budget presented in this report provides a Budget for UWSS that is fiscally prudent while also providing for the major maintenance and lifecycle replacements needed to ensure that UWSS facilities and operations are effective and sustainable for the future.

Respectfully submitted,



Rodney Bouchard, General Manager  
Union Water Supply System Joint Board of Management

rb/kmj

**2021 UWSS DRAFT OPERATIONS AND CAPITAL BUDGET  
TABLES AND DETAILS**

**UNION WATER SUPPLY SYSTEM**  
**2021 DRAFT BUDGET**  
**Budgeted Water Demand and Wholesale Rate Revenue**

Flow Metering Location	2020 Approved Budget	2020 Actual as of Oct. 31st, 2020	2020 Forecasted to Dec. 31st, 2020	2021 Rate Increase of \$0.0258 per m3	2022 Rate Increase of \$0.0269 per m3	2023 Rate Increase of \$0.0279 per m3	2024 Rate Increase of \$0.0291 per m3	2025 Rate Increase of \$0.0302 per m3	2026 Rate Increase of \$0.0314 per m3
Essex PUC	795,000	761,598	860,563	881,000	889,810	898,708	907,695	916,772	925,940
Gosfield N. Twsp	645,000	600,634	678,682	695,000	701,950	708,970	716,059	723,220	730,452
Gosfield S. Twsp	5,020,000	5,147,273	5,816,127	5,957,000	6,016,570	6,076,736	6,137,503	6,198,878	6,260,867
Highbury CanCo	1,150,000	918,469	1,037,818	1,063,000	1,073,630	1,084,366	1,095,210	1,106,162	1,117,224
Kingsville PUC	650,000	594,678	671,953	688,000	694,880	701,829	708,847	715,936	723,095
Leamington PUC	8,150,000	8,204,336	9,270,436	9,496,000	9,590,960	9,686,870	9,783,738	9,881,576	9,980,391
Lakeshore	540,000	602,013	680,241	697,000	703,970	711,010	718,120	725,301	732,554
<b>Total Flow:</b>	<b>16,950,000</b>	<b>16,829,001</b>	<b>19,015,820</b>	<b>19,477,000</b>	<b>19,671,770</b>	<b>19,868,488</b>	<b>20,067,173</b>	<b>20,267,844</b>	<b>20,470,523</b>
	3,729,000,000	3,702,380,160	4,183,480,407	4,284,940,000	4,327,789,400	4,371,067,294	4,414,777,967	4,458,925,747	4,503,515,004
			12%	2%	1%	1%	1%	1%	1%
Rate 1 Flow	16,950,000	16,829,001	19,015,820	19,477,000	19,671,770	19,868,488	20,067,173	20,267,844	20,470,523
Rate 1	\$0.6458	\$0.6458	\$0.6458	\$0.6716	\$0.6985	\$0.7264	\$0.7555	\$0.7857	\$0.8171
Rate 1 Revenue	\$10,946,310	\$10,868,169	\$12,280,417	\$13,080,753	\$13,740,731	\$14,432,469	\$15,160,749	\$15,924,445	\$16,726,464
Rate 2 Flow	0	0	0	0	0	0	0	0	0
Rate 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Rate 2 Revenue	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Rate 3 Flow	0	0	0	0	0	0	0	0	0
Rate 3 Flow	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Rate 3 Revenue	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Lifecycle Rate	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791
	\$1,341,084	\$1,331,511	\$1,504,532	\$1,541,020	\$1,556,430	\$1,571,995	\$1,587,715	\$1,603,592	\$1,619,628
<b>Total Revenue</b>	<b>\$10,946,310</b>	<b>\$10,868,169</b>	<b>\$12,280,417</b>	<b>\$13,080,753</b>	<b>\$13,740,731</b>	<b>\$14,432,469</b>	<b>\$15,160,749</b>	<b>\$15,924,445</b>	<b>\$16,726,464</b>

UNION WATER SUPPLY SYSTEM  
2021 DRAFT BUDGET  
Budget Summary

	2020	2020	2020	2021	2022	2023	2024	2025	2026
	Approved Budget	Actual as of Oct. 31st, 2020	Forecasted to Dec 31st, 2020	Rate Increase of \$0.0258 per m3	Rate Increase of \$0.0269 per m3	Rate Increase of \$0.0279 per m3	Rate Increase of \$0.0291 per m3	Rate Increase of \$0.0302 per m3	Rate Increase of \$0.0314 per m3
<b>REVENUE</b>									
Senior Government Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wholesale Rate Billings	\$10,946,310	\$10,868,169	\$12,280,417	\$13,080,753	\$13,740,731	\$14,432,469	\$15,160,749	\$15,924,445	\$16,726,464
Investment Income	\$459,000	\$395,700	\$475,000	\$405,207	\$413,311	\$421,577	\$430,009	\$438,609	\$447,381
Sundry revenue	\$21,420	\$18,816	\$22,600	\$21,848	\$22,285	\$22,731	\$23,186	\$23,649	\$24,122
Municipal Study Revenue	\$0	\$0	\$0	\$70,000					
<b>TOTAL REVENUES</b>	<b>\$11,426,730</b>	<b>\$11,282,685</b>	<b>\$12,778,017</b>	<b>\$13,577,809</b>	<b>\$14,176,328</b>	<b>\$14,876,778</b>	<b>\$15,613,943</b>	<b>\$16,386,704</b>	<b>\$17,197,968</b>
<b>OPERATING EXPENDITURE</b>									
General Administration	\$359,115	\$313,319	\$374,011	\$384,077	\$384,139	\$389,302	\$394,568	\$399,939	\$405,418
Leamington Assistance	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Miscellaneous Legal/Professional fees	\$75,000	\$15,197	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
OCWA Operating Contract	\$3,330,300	\$2,768,746	\$3,207,295	\$3,396,906	\$3,464,844	\$3,534,141	\$3,604,824	\$3,676,920	\$3,750,459
Programs and Studies	\$600,000	\$285,000	\$130,000	\$430,000	\$400,000	\$250,000	\$150,000	\$150,000	\$150,000
Operational/Maintenance/Upgrades - General	\$250,000	\$136,031	\$171,031	\$350,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Property Taxes	\$147,500	\$76,978	\$150,160	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500
CO2 Liquified Gas Procurement	\$178,500	\$12,766	\$19,104	\$100,000	\$102,000	\$104,040	\$106,121	\$108,243	\$110,408
Electricity and Natural Gas	\$1,275,000	\$1,047,000	\$1,265,000	\$1,315,600	\$1,341,912	\$1,368,750	\$1,396,125	\$1,424,048	\$1,452,529
<b>TOTAL OPERATING EXPENDITURES</b>	<b>\$6,245,415</b>	<b>\$4,685,037</b>	<b>\$5,391,601</b>	<b>\$6,199,083</b>	<b>\$6,215,395</b>	<b>\$6,168,733</b>	<b>\$6,174,138</b>	<b>\$6,281,650</b>	<b>\$6,391,313</b>
Debt Service	\$2,351,279	\$2,069,125	\$2,351,279	\$2,370,377	\$4,389,596	\$4,408,934	\$5,428,392	\$5,449,323	\$5,467,669
<b>TOTAL DEBT SERVICE EXPENDITURES</b>	<b>\$2,351,279</b>	<b>\$2,069,125</b>	<b>\$2,351,279</b>	<b>\$2,370,377</b>	<b>\$4,389,596</b>	<b>\$4,408,934</b>	<b>\$5,428,392</b>	<b>\$5,449,323</b>	<b>\$5,467,669</b>
<b>CASH CAPITAL EXPENDITURE</b>									
Capital Repair, Maintenance & Upgrade Works	\$5,050,000	\$875,225	\$1,486,441	\$8,155,000	\$5,480,000	\$6,150,000	\$6,160,000	\$4,080,000	\$2,150,000
Contingency									
<b>TOTAL CASH FUNDED CAPITAL EXPENDITURES</b>	<b>\$5,050,000</b>	<b>\$875,225</b>	<b>\$1,486,441</b>	<b>\$8,155,000</b>	<b>\$5,480,000</b>	<b>\$6,150,000</b>	<b>\$6,160,000</b>	<b>\$4,080,000</b>	<b>\$2,150,000</b>
<b>NET SURPLUS/(DEFICIT)</b>	<b>(\$2,219,964)</b>	<b>\$3,653,298</b>	<b>\$3,548,696</b>	<b>(\$3,146,652)</b>	<b>(\$1,908,663)</b>	<b>(\$1,850,889)</b>	<b>(\$2,148,586)</b>	<b>\$575,730</b>	<b>\$3,188,986</b>
	2020	2020	2020	2021	2022	2023	2024	2025	2026
	Approved Budget	As of Oct. 31st	Forecasted to Dec 31st	Budget	Budget	Budget	Budget	Budget	Budget
Operating & Capital Reserves	\$7,263,660	\$7,263,660	\$7,263,660	\$10,812,356	\$7,665,704	\$5,757,041	\$3,906,152	\$1,757,566	\$2,333,296
Addition/(subtraction) from Operations Budget.	-\$2,219,964	\$3,653,298	\$3,548,696	-\$3,146,652	-\$1,908,663	-\$1,850,889	-\$2,148,586	\$575,730	\$3,188,986
Addition/(Subtraction) from Rate Stabilization Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Operating & Capital Reserves	\$5,043,696	\$10,916,958	\$10,812,356	\$7,665,704	\$5,757,041	\$3,906,152	\$1,757,566	\$2,333,296	\$5,522,282
Rate Stabilization Reserve	\$10,516,503	\$10,516,503	\$10,516,503	\$10,784,674	\$11,059,683	\$11,341,705	\$11,630,918	\$11,927,507	\$12,231,658
Interest (GIC at 2.55%)	\$268,171	\$268,171	\$268,171	\$275,009	\$282,022	\$289,213	\$296,588	\$304,151	\$311,907
Subtotal Rate Stabilization Reserve	\$10,784,674	\$10,784,674	\$10,784,674	\$11,059,683	\$11,341,705	\$11,630,918	\$11,927,507	\$12,231,658	\$12,543,566
(Subtraction) from Rate Stabilization Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Rate Stabilization Reserve	\$10,784,674	\$10,784,674	\$10,784,674	\$11,059,683	\$11,341,705	\$11,630,918	\$11,927,507	\$12,231,658	\$12,543,566
<b>Total Reserves</b>	<b>\$15,828,370</b>	<b>\$21,701,632</b>	<b>\$21,597,029</b>	<b>\$18,725,387</b>	<b>\$17,098,746</b>	<b>\$15,537,070</b>	<b>\$13,685,073</b>	<b>\$14,564,955</b>	<b>\$18,065,847</b>
Sunlife Debt	\$10,678,259	\$10,678,259	\$10,678,259	\$9,375,773	\$7,908,943	\$6,259,451	\$4,406,948	\$2,310,158	\$0

UNION WATER SUPPLY SYSTEM 2021 DRAFT BUDGET Proposed Operational Revenue and Expenditures Budget										
		2020	2020	2020	2021	2022	2023	2024	2025	2026
Number	Account Description	Approved Budget	Actual as of Oct. 31st, 2020	Forecasted to Dec. 31st, 2020	Rate Increase of \$0.0258 per m3	Rate Increase of \$0.0269 per m3	Rate Increase of \$0.0279 per m3	Rate Increase of \$0.0291 per m3	Rate Increase of \$0.0302 per m3	Rate Increase of \$0.0314 per m3
<b>REVENUE ACCOUNTS</b>										
<b>FEES REVENUE</b>										
0700-3700	Wholesale Rate Billings	\$10,946,310	\$10,868,169	\$12,280,417	\$13,080,753	\$13,740,731	\$14,432,469	\$15,160,749	\$15,924,445	\$16,726,464
		\$10,946,310	\$10,868,169	\$12,280,417	\$13,080,753	\$13,740,731	\$14,432,469	\$15,160,749	\$15,924,445	\$16,726,464
<b>MISCELLANEOUS REVENUES</b>										
0700-4100	Investment Income (Operations)	\$459,000	\$395,700	\$475,000	\$405,207	\$413,311	\$421,577	\$430,009	\$438,609	\$447,381
0700-3999	Sundry revenue	\$21,420	\$18,816	\$22,600	\$21,848	\$22,285	\$22,731	\$23,186	\$23,649	\$24,122
	Municipal Study Revenue (Windsor Utilities)	\$0	\$0	\$0	\$70,000	\$0	\$0	\$0	\$0	\$0
		\$480,420	\$414,516	\$497,600	\$497,055	\$435,597	\$444,308	\$453,195	\$462,258	\$471,504
	<b>TOTAL REVENUES :</b>	<b>\$11,426,730</b>	<b>\$11,282,685</b>	<b>\$12,778,017</b>	<b>\$13,577,809</b>	<b>\$14,176,328</b>	<b>\$14,876,778</b>	<b>\$15,613,943</b>	<b>\$16,386,704</b>	<b>\$17,197,968</b>
<b>EXPENDITURE ACCOUNTS</b>										
<b>WAGES AND BENEFITS</b>										
0700-5000	Salaried	\$183,600	\$150,101	\$183,600	\$187,272	\$191,017	\$194,838	\$198,735	\$202,709	\$206,763
	Part time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0700-5200 to 5210	Benefits - Full time	\$64,515	\$43,752	\$64,515	\$65,805	\$67,121	\$68,464	\$69,833	\$71,230	\$72,654
	Benefits - Part time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		\$248,115	\$193,853	\$248,115	\$253,077	\$258,139	\$263,302	\$268,568	\$273,939	\$279,418
<b>OFFICE OVERHEAD, RENTS AND SERVICES</b>										
0700-7010	Office supplies	\$2,000	\$877	\$1,300	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
0700-7015	Board expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0700-7020	Dues, Memberships, Subsc	\$5,000	\$3,196	\$4,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
0700-7030	Travel & Mileage	\$3,000	\$429	\$429	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
0700-7040	Training	\$8,000	\$2,106	\$3,200	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
0700-7050	Conferences	\$10,000	\$152	\$500	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
0700-7052	Meeting Expenses	\$3,000	\$145	\$145	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
0700-7070	Uniforms/Clothing	\$500	\$77	\$150	\$500	\$500	\$500	\$500	\$500	\$500
0700-7950	Legal/Professional fees	\$75,000	\$15,197	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
0700-7959-002070	Audit Fees	\$6,500	\$6,212	\$6,212	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500
0700-7080 & 7085	Operational Purchases/Maint.	\$20,000	\$20,000	\$20,000	\$17,500	\$17,500	\$17,500	\$17,500	\$17,500	\$17,500
0700-7110	Communications	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
0700-7120	Postage & Courier	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500
0700-7130	Advertising & Promotion	\$7,000	\$1,010	\$2,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
0700-7140	Insurance	\$15,000	\$16,304	\$16,304	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
0700-7130	Donations & Grants	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
0700-7260	Software Licensing and Support	\$10,000	\$58,656	\$58,656	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
0700-7270	Office equipment Purchases/Maint.	\$5,000	\$2,910	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
	COVID 19 Related	\$0	\$1,392	\$2,000	\$5,000	\$0	\$0	\$0	\$0	\$0
		\$176,000	\$134,663	\$170,896	\$176,000	\$171,000	\$171,000	\$171,000	\$171,000	\$171,000
0700-6720	OCWA Operating Union	\$3,330,300	\$2,768,746	\$3,207,295	\$3,396,906	\$3,464,844	\$3,534,141	\$3,604,824	\$3,676,920	\$3,750,459
0700-6750	Property Taxes	\$147,500	\$76,978	\$150,160	\$150,160	\$150,160	\$150,160	\$150,160	\$150,160	\$150,160
0700-7090	Learnington Assistance	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
0700-7090	Sundry	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0700-7410 & 7420	Electricity and Natural Gas	\$1,275,000	\$1,047,000	\$1,265,000	\$1,315,600	\$1,341,912	\$1,368,750	\$1,396,125	\$1,424,048	\$1,452,529
0700-7400-002077	CO2 Gas Bulk Purchase	\$178,500	\$12,766	\$19,104	\$100,000	\$102,000	\$104,040	\$106,121	\$108,243	\$110,408
0700-7989-002075	Operational Programs & Studies	\$600,000	\$39,854	\$130,000	\$430,000	\$400,000	\$250,000	\$150,000	\$150,000	\$150,000
0700-8133-002074	Residuals Ponds Maintenance	\$150,000	\$136,031	\$136,031	\$200,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
0700-7961-002075	Water Quality/Corrosion Program	\$0	\$0	\$0	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
0700-8134-002074	Watermain Repairs	\$100,000	\$0	\$35,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
	<b>TOTAL OPERATIONAL EXPENDITURES:</b>	<b>\$6,235,415</b>	<b>\$4,439,891</b>	<b>\$5,391,601</b>	<b>\$6,201,743</b>	<b>\$6,168,055</b>	<b>\$6,121,393</b>	<b>\$6,126,798</b>	<b>\$6,234,310</b>	<b>\$6,343,973</b>
<b>NET OPERATIONAL SURPLUS/(DEFICIT)</b>		<b>\$5,191,315</b>	<b>\$6,842,794</b>	<b>\$7,386,416</b>	<b>\$7,376,065</b>	<b>\$8,008,273</b>	<b>\$8,755,385</b>	<b>\$9,487,146</b>	<b>\$10,152,393</b>	<b>\$10,853,995</b>
<b>DEBT SERVICE</b>										
0700-6000 & 6100	Sun Life Debt Obligation	\$2,351,279	\$2,069,125	\$2,351,279	\$2,370,377	\$2,389,596	\$2,408,934	\$2,428,392	\$2,449,323	\$2,467,669
	Reservoir #3 Loan	\$0	\$0	\$0	\$0	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
	Cottam WM Replacement Loan							\$1,000,000	\$1,000,000	\$1,000,000
	<b>TOTAL DEBT SERVICE:</b>	<b>\$2,351,279</b>	<b>\$2,069,125</b>	<b>\$2,351,279</b>	<b>\$2,370,377</b>	<b>\$4,389,596</b>	<b>\$4,408,934</b>	<b>\$5,428,392</b>	<b>\$5,449,323</b>	<b>\$5,467,669</b>
<b>SURPLUS/(DEFICIT) AFTER DEBT</b>		<b>\$2,840,036</b>	<b>\$4,773,669</b>	<b>\$5,035,137</b>	<b>\$5,005,688</b>	<b>\$3,618,677</b>	<b>\$4,346,451</b>	<b>\$4,058,754</b>	<b>\$4,703,070</b>	<b>\$5,386,326</b>

UNION WATER SUPPLY SYSTEM  
DRAFT 2021 BUDGET  
2020 Capital Expenditures Summary

Item Description	2020 Approved Study/ Capital Budget	Actual as of Oct. 31st	% of Budget as of Oct 31st	Projected Expenditures to Dec. 31st	Projected % of Budget to Dec. 31st	Comments
<b><u>Studies and Programs</u></b>						
Water Demand/ Water Loss/ Water Quality Initiatives	\$75,000	\$34,854	46%	\$45,000	60%	Work associated with this is basically complete
Lake Erie Hab Monitoring Project - UWSS & Univ. of Windsor/GLIER	\$100,000	\$0	0%	\$0	0%	Grant Matching funds. Grant process delayed. Hopeful for 2021
Emergency Water Servicing Study - UWSS & WUC	\$140,000	\$0	0%	\$25,000	18%	Approved in October 2020. Will continue into 2021
New Ruthven WTP Reservoir #3 Study/ Reservoir Optimization	\$40,000	\$5,000	13%	\$10,000	25%	Underway. Will continue into 2021
Backup power generation/ energy study	\$40,000	\$0	0%	\$0	0%	Moved to 2021
UWSS Infrastructure Review and Master Servicing Plan	\$205,000	\$0	0%	\$50,000	24%	Approved in October 2020. Will continue into 2021
<b>Total Studies/Programs:</b>	<b>\$600,000</b>	<b>\$39,854</b>	<b>7%</b>	<b>\$130,000</b>	<b>22%</b>	
<b><u>Capital Works and Major Maintenance</u></b>						
Low Lift Pump #5 Rehab	\$35,000	\$41,441	118%	\$41,441	118%	Project Complete
Low Lift Roof Replacement	\$90,000	\$0	0%	\$0	0%	Moved to 2021
Blue Green Algae/ Chlorophyll Probe - Low lift well	\$30,000	\$0	0%	\$25,000	83%	Underway. Should be spent by end of 2020
Low Lift Main Electrical-Transformer/Feed/Switch Gear/Breaker Upgrades	\$250,000	\$48,664	19%	\$75,000	30%	Underway. Delayed due to COVID 19 Restrictions. Will continue into 2021
Carbon Recirculation Pump - New	\$10,000	\$0	0%	\$0	0%	Not required
Filter # 4 - Rehab (recoat filter box; new underdrains)	\$400,000	\$0	0%	\$0	0%	Delayed. Moved to 2021
Highlift Pump #7 - New	\$250,000	\$0	0%	\$0	0%	Delayed. Moved to 2021
New Panel, Quick Connect & Transfer Switch for Portable Generator	\$60,000	\$0	0%	\$20,000	33%	Underway. Will continue into 2021
SCADA System Upgrades (continued from 2019)	\$250,000	\$200,002	80%	\$390,000	156%	Substantially complete.
Security System Install	\$85,000	\$37,366	44%	\$90,000	106%	Substantially complete.
UWSS Wide Communication Upgrades	\$20,000	\$7,714	39%	\$20,000	100%	Work will be completed by end of 2020
Cottam Booster - Review Baffling to improve reservoir mixing	\$30,000	\$14,466	48%	\$30,000	100%	Should be complete by end of 2020
Kingsville Water Tower Recoating; Safety Upgrades; Improvements	\$1,300,000	\$35,345	3%	\$60,000	5%	Delayed due to COVID 19. Moved to 2021
Distribution System Components	\$200,000	\$89,243	45%	\$125,000	63%	On-going. This years work to be completed by end of 2020
Master Water Meters Upgrades	\$50,000	\$26,368	53%	\$45,000	90%	Basically complete for this year
Laboratory Upgrades	\$100,000	\$12,000	12%	\$50,000	50%	Underway. Will continue into 2021
Treatment Plant Bldg Improvements - Admin Area/New offices	\$45,000	\$0	0%	\$15,000	33%	Underway. Will continue into 2021
Grounds Improvements (landscaping; asphalt/road repairs, etc)	\$100,000	\$17,454	17%	\$25,000	25%	Delayed due to COVID 19. Moved to 2021
Fencing - Treatment Plant Property; Leamington Water Tower Property	\$45,000	\$0	0%	\$0	0%	Completed under OCWA Budget
<b>Total Capital Works and Major Maintenance:</b>	<b>\$3,350,000</b>	<b>\$530,063</b>	<b>16%</b>	<b>\$1,011,441</b>	<b>30%</b>	
<b><u>NEW CAPITAL WORKS</u></b>						
DAF System Design/ Build (Project Will start in Fall 2020; complete in 2021. Total budget \$2,500,000)	\$1,400,000	\$41,312	3%	\$175,000	13%	Design underway. Construction to be done in 2021
Chlorine Gas System Improvements and New Scrubber	\$150,000	\$151,925	101%	\$150,000	100%	Complete
CO2 pH Adjustment System Construction	\$150,000	\$151,925	101%	\$150,000	100%	Complete
<b>Total Maintenance and Repairs:</b>	<b>\$1,700,000</b>	<b>\$345,162</b>	<b>20%</b>	<b>\$475,000</b>	<b>28%</b>	
<b>Total Capital Works:</b>	<b>\$5,050,000</b>	<b>\$875,225</b>	<b>17%</b>	<b>\$1,486,441</b>	<b>29%</b>	

UNION WATER SUPPLY SYSTEM  
DRAFT 2021 BUDGET  
2021 Proposed Capital Budget

CATEGORY								FUNDING SOURCE		
Item Description	Studies	Treatment Plant Upgrades & Renewals	Low Lift Upgrades	Cottam Booster Upgrades	SCADA / Communication/ Security System Upgrades	Transmission Facilities	General/ Various Facilities	TOTAL	Revenue	Reserves
<b>STUDIES/PROGRAMS</b>										
Lake Erie HAB Monitoring Project - UWSS & Univ. of Windsor/GLIER	\$100,000									
Emergency Water Servicing Study - UWSS & WUC	\$115,000									
New Ruthven WTP Reservoir #3 Study/ Reservoir Optimization	\$30,000									
Backup power generation/ energy study	\$40,000									
UWSS Infrastructure Review and Master Servicing Plan	\$145,000									
Total Studies/Programs	\$430,000									
<b>CAPITAL WORKS/ MAJOR MAINTENANCE</b>										
Low Lift Pump #3 Rehab			\$35,000					\$35,000		
Low Lift Roof Replacement			\$75,000					\$75,000		
Low Lift Main Electrical-Transformer/Feed/Switch Gear/Breaker Upgrades			\$200,000					\$200,000		
Filter Aid System Upgrade		\$60,000						\$60,000		
Filter # 2 - Rehab (recoat filter box; new underdrains)		\$300,000						\$300,000		
Filter # 4 - Rehab (recoat filter box; new underdrains)		\$300,000						\$300,000		
Highlift Pump #7 - New		\$175,000						\$175,000		
Communication System upgrades					\$35,000			\$35,000		
PLC Upgrades - Low Lift, Cottam Booster, Generator B					\$150,000			\$150,000		
Electrical Upgrades - capacitors, etc.							\$70,000	\$70,000		
Cottam Booster mixing system design and install				\$75,000				\$75,000		
Kingsville Water Tower Recoating; Safety Upgrades; Improvements						\$1,300,000		\$1,300,000		
Essex Water Tower New Cathodic Protection System						\$40,000		\$40,000		
Distribution System Components						\$150,000		\$150,000		
Master Water Meters Upgrades						\$50,000		\$50,000		
Laboratory Upgrades						\$75,000		\$75,000		
Treatment Plant Bldg Improvements - Admin Area		\$30,000						\$30,000		
Clearwell #1 Inlet Rotork - new		\$20,000						\$20,000		
Wastewater Pump - New backup pump		\$50,000						\$50,000		
Grounds Improvements (landscaping; asphalt/road repairs, etc)							\$170,000	\$170,000		
Ammonia Building Retrofits							\$125,000	\$125,000		
Fencing - Treatment Plant Property; Leamington Water Tower Property							\$20,000	\$20,000		
Total Capital Works/ Major Maintenance		\$935,000	\$310,000	\$75,000	\$185,000	\$1,615,000	\$385,000	\$3,505,000		
<b>NEW CAPITAL WORKS</b>										
DAF System Design for 2 units; construction of Clarifier #2 retrofit		\$4,500,000						\$4,500,000		
Kingsville Water Tower new utility Building							\$150,000	\$150,000		
Total New Capital Works		\$4,500,000	\$0	\$0	\$0	\$0	\$150,000	\$4,650,000		
TOTAL MAJOR MAINTENANCE and CAPITAL		\$5,435,000	\$310,000	\$75,000	\$185,000	\$1,615,000	\$535,000	\$8,155,000		

TOTAL MAINTENANCE, CAPITAL and STUDIES



**UWSS 6-YEAR CAPITAL PLAN  
TABLES AND DETAILS**

UNION WATER SUPPLY SYSTEM Six Year Recommended Capital / Major Maintenance - December 4, 2020								
	2021	2022	2023	2024	2025	2026	Total Capital Expenditures 2018 2024	Comments
Union Area Water Supply System								
Studies and Programs								
Lake Erie HAB Monitoring Study - UWSS & U of Windsor	\$ 100,000	\$ 100,000	\$ 100,000				\$ 300,000	
Emergency Water Servicing Study - UWSS / WUC	\$ 115,000						\$ 115,000	
New Ruthven WTP Reservoir #3 Study	\$ 30,000						\$ 30,000	
Backup power generation / energy study	\$ 40,000						\$ 40,000	
UWSS Infrastructure Review and Master Plan Update	\$ 145,000						\$ 145,000	
Study, Engineering and Design for replacement of 12" WM to CBS		\$ 250,000					\$ 250,000	
Contingency (un-identified future studies)		\$ 50,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 650,000	
Subtotal Studies and Programs	\$ 430,000	\$ 400,000	\$ 250,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 1,530,000	
Low Lift								
Intake #1 & 2* (Note 5)				\$ 30,000	\$ 30,000		\$ 60,000	Maintenance
Intake # 2 (See Item 16 for more detail)							\$ -	Maintenance
Intake # 3, shoreline intake							\$ -	
Coarse Bar Screen (2)							\$ -	maintenance not required
Travelling Screen #1							\$ -	replaced in 2008
Travelling Screen #2							\$ -	Replaced in 2012
Travelling Screen #3		\$ 125,000					\$ 125,000	installed in 1994; upgrades planned for 2022
Pump Wells(2)							\$ -	cleaned & inspected annually
Low Lift Pump 1 *(Note 1)							\$ -	rebuilt in 2018
Low Lift Pump 2							\$ -	rebuilt in 2017
Low Lift Pump 3	\$ 35,000						\$ 35,000	rebuilt in 2016
Low Lift Pump 4		\$ 35,000					\$ 35,000	rebuilt in 2007
Low Lift Pump 5							\$ -	New in 2020
Low Lift Pump 6			\$ 35,000				\$ 35,000	rebuilt in 2008
Low Lift Pump 7							\$ -	rebuilt in 2008
Zebra Mussel Control System				\$ 20,000			\$ 20,000	Zebra mussel system upgraded in 2018
Pump discharge line							\$ -	
Low Lift Surge Tanks (2) and Compressor System *(Note 6)							\$ -	Ladder/safety system; 2 new compressors needed
Low Lift Roof Replacement	\$ 75,000						\$ 75,000	
Low Lift Diesel Generator						\$ 1,500,000	\$ 1,500,000	O & M Contracted to Genrep
Low Lift transformer, feed, switch gear, breaker upgrades	\$ 200,000						\$ 200,000	Electrical Transformer, switchgear etc is obsolete
General Building Maintenance & Equipment								
Grounds Improvements	\$ 170,000	\$ 75,000		\$ 35,000		\$ 100,000	\$ 380,000	upgrade of roadway to rear plant area
Ammonia Building Retrofits	\$ 125,000						\$ 125,000	
Fencing- Treatment Plant Property; Leamington Water Tower	\$ 20,000						\$ 20,000	
Upgrades to Pole Barn - Roof, electric, etc.		\$ 30,000					\$ 30,000	
							\$ -	
Clarification System							\$ -	
Clarifier 1 -							\$ -	New Flow meter and control valve
Clarifier 2 -							\$ -	To be retrofitted to DAF in 2021
Clarifier 3							\$ -	New Flow meter and control valve
Clarifier 4							\$ -	To be retrofitted to DAF in 2022
Chemical System							\$ -	
Coagulant Feed System			\$ 15,000			\$ 20,000	\$ 35,000	Upgraded in 2013

Coagulant Storage							\$	-	
Filter Aid System Upgrades	\$	60,000					\$	60,000	Needs a full upgrade
Carbon Feed System							\$	-	
Carbon Flushing Lines							\$	-	
Tank Mixers (3)							\$	-	System upgraded 2015
Recirc. Pump							\$	-	Inspection and refurburbishment needed
Slurry Transfer Pumps (2)							\$	-	
Carbon Feed Pumps (4)		\$	40,000			\$	30,000	70,000	Larger pumps required
Carbon Scrubber System							\$	-	requires upgrade
Filtration							\$	-	
Filter 1							\$	-	Fully upgraded in 2012
Filter 2	\$	300,000					\$	300,000	Filter leaking; needs recoating and new underdrains
Filter 3							\$	-	Fully upgraded in 2013
Filter 4	\$	300,000					\$	300,000	Filter leaking; needs recoating and new underdrains
Filter 5							\$	-	New Media in 2017
Filter 6							\$	-	new media in 2018
Filter 7							\$	-	New Media in 2017
Filter 8							\$	-	new media in 2018
Turbidity Meters for Filter Backwash							\$	-	New items to optimize backwash process
Filter Meter Replacements							\$	-	New Filter meters for Filters 6-8
Valves							\$	-	Completed in 2016-2017
Removal of Microstrainers/ Install of Flooring							\$	-	Microstrainer No. 2 to be removed
Pumps									
Backwash Pump 1 - Actuator upgrade							\$	-	new actuator
Backwash Pump 2						\$	150,000	150,000	new in 1996
High Lift Pump 1 *(Note 2) Diesel Pump							\$	-	motor repairs 2018
High Lift Pump 2							\$	-	Replaced 2013
High Lift Pump 3							\$	-	rebuilt 2006
High Lift Pump 4							\$	-	rebuilt 2007
High Lift Pump 5							\$	-	rebuilt 2008
High Lift Pump 6							\$	-	new pump 2013
High Lift Pump 7	\$	175,000					\$	175,000	New pump installation in East Well
High Lift Pump 8							\$	-	new in 1996, rebuilt 2015
High Lift Pump 9						\$	200,000	200,000	new in 1996
High Lift Pump No. 10							\$	-	New pump needed in newer high lift bay
High Lift Reservoirs and components			\$	50,000			\$	50,000	Upside down valve/piping corrosion protection
Wastewater Pumps (2)	\$	50,000				\$	75,000	125,000	Backup Wastewater Pump
HL Compressor 1							\$	-	Replacement
HL Compressor 2							\$	-	Replacement
HL Compressor 3		\$	15,000				\$	15,000	Replacement
Main Plant Reservoirs and Clearwells									
Reservoir #1							\$	-	
Reservoir #2							\$	-	
Clearwells	\$	20,000					\$	20,000	New inlet Rotork for Clearwell #1
Main Plant Electrical									
General Electrical upgrades	\$	70,000					\$	70,000	New Panel & Quick Connects for Portable Generator, etc.
New Generators for Treatment Plant				\$	2,000,000	\$	1,500,000	3,500,000	
Energy Monitoring and Management System - High Lift							\$	-	
Generator B Transfer Switch Automation							\$	-	Completed in 2014
Disinfection									
Dehumidification							\$	-	
Chlorine Feed System							\$	-	
Ammonia Feed System							\$	-	installed new in 2002
Scrubber System							\$	-	new acid pump installed in 2009
SCADA /Communication/Security									
Security System Install							\$	-	Keyless entry security system
System upgrade and Maintenance	\$	150,000	\$	30,000	\$	30,000	\$	30,000	PLC Upgrades needed for Low Lift, CBS and Gen B
				\$	30,000	\$	30,000		

UWSS Wide Communication System Improvements	\$ 35,000	\$ 30,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 145,000	improvements to existing communication system
Monitoring Equipment								
Turbidity Meter Replacement -							\$ -	For clarifiers #3 and #4 monitoring
Chlorine Analyzer Replacements							\$ -	4 new units needed
Blue Green Algae Monitoring Probe							\$ -	2 new units needed
Building Maintenance								
Facility Enhancements - General							\$ -	
Maintenance Shop Roof Replacement							\$ -	Roof Leaking and Needs to be Replaced
Windows & Doors Replacement							\$ -	asbestos like material present in window caulking, portion to
Admin Building	\$ 30,000			\$ 25,000		\$ 25,000	\$ 80,000	
Laboratory Upgrade	\$ 75,000						\$ 75,000	Laboratory to be moved to old microstrainer room and
New Equipment								
Portable Backup Generator for Low Lift, Water Towers, Emergency							\$ -	Purchased in 2016
Cottam Reservoir & Booster PS								
Reservoir							\$ -	Review Baffling to improve reservoir mixing
Booster Pump 1							\$ -	new in 1996
Booster Pump 2							\$ -	new in 1996
Booster Pump 3							\$ -	new in 1996
Booster Pump 4							\$ -	new in 1996
Surge Tanks (2)							\$ -	Insurance inspected in 2009, needs internal inspection
Compressor							\$ -	Replaced 2012
Reservoir Cover Regrading/Repairs							\$ -	Started in Dec. 2018/to be completed in 2019
Rechlorination system upgrades							\$ -	Rechlorination system is old and obsolete; needs upgrade
Passive Mixing System Install	\$ 75,000						\$ 75,000	Completed 2014
Distribution System								
Leamington Tower							\$ -	New Cathodic System installed in 2018
Albuna Tower		\$ 250,000					\$ 250,000	New Control Valve on 42inch for Albuna Control
Kingsville Tower	\$ 1,300,000						\$ 1,300,000	Safety Upgrades and Painting (2020)
Essex Tower	\$ 40,000						\$ 40,000	recoated and upgraded in 2018; new cathodic system 2021
Distribution System Maintenance	\$ 150,000	\$ 100,000					\$ 250,000	New Actuators for 1A/1B and other components
Master Water Meter Replacement/Upgrades	\$ 50,000						\$ 50,000	Cell Based reporting system
Wastewater Treatment System								
Wastewater Pond Upgrades		\$ 250,000					\$ 250,000	Clay liner improvements
Residuals Management system (see new capital works)							\$ -	
							\$ -	
NEW CAPITAL PROJECTS							\$ -	
Cash Funded Project							\$ -	
CO2 pH Adjustment System Install							\$ -	New in 2020
UV Disinfection - In-reservoir UV vault		\$ 250,000	\$ 4,500,000	\$ 3,000,000			\$ 7,750,000	New UV Disinfection System.
Dry Scrubber - Chlorine Gas system upgraded							\$ -	New in 2020
Pre-Treatment/clarification upgrades (DAF) design	\$ 4,500,000	\$ 4,000,000					\$ 8,500,000	Conversion of Clarifiers No 1 and 2 to DAF
Residuals management system upgrades		\$ 250,000		\$ 1,000,000	\$ 2,500,000		\$ 3,750,000	Residuals staging/ dewatering area and Polymer/thickening
Kingsville Water Tower Utility Building	\$ 150,000							
Admin Building upgrades, expansion and elevator			\$ 1,500,000				\$ 1,500,000	Office Admin area expansion and new elevator
Debt Funded Project								
New Reservoir #3		\$ 15,000,000	\$ 5,000,000				\$ 20,000,000	
Replacement of 12-inch Cottam Water Main				\$ 6,000,000	\$ 2,000,000		\$ 8,000,000	New 18-inch watermain to cottam
Subtotal Capital and Major Maintenance	\$3,505,000	\$980,000	\$150,000	\$2,160,000	\$1,580,000	\$2,150,000	\$ 10,525,000	
Total Cash Funded New Capital Projects	\$4,650,000	\$4,500,000	\$6,000,000	\$4,000,000	\$2,500,000	\$0	\$ 21,650,000	
TOTAL CAPITAL	\$8,155,000	\$5,480,000	\$6,150,000	\$6,160,000	\$4,080,000	\$2,150,000	\$ 32,175,000	
Subtotal Studies and Programs	\$430,000	\$400,000	\$250,000	\$150,000	\$150,000	\$150,000	\$ 1,530,000	
Contingency							\$ -	
TOTAL CAPITAL, STUDIES AND NEW CAPITAL	\$ 8,585,000	\$ 5,880,000	\$ 6,400,000	\$ 6,310,000	\$ 4,230,000	\$ 2,300,000	\$ 33,705,000	

**Dates for the Union Water Supply System Joint Board of Management Meetings  
for the 2021 Year**

January 20, 2021

February 17, 2021

March 17, 2021

April 21, 2021

May 19, 2021

June 16, 2021

July 21, 2021

August 18, 2021

September 15, 2021

October 20, 2021

November 17, 2021

December 15, 2021

Until it is deemed safe to return to in person meetings all meetings will take place virtually in Zoom. Thank you

UW/32/20

**To:** Chair and Members of the Union Water Supply  
System Joint Board of Management

**From:** Rodney Bouchard, Union Water Manager

**Date:** November 13, 2020

**Re:** Payments for November 16<sup>th</sup> to December 2020

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**Aim:**

To provide the Board with a copy of payments made by the Union Water Supply System from November 16<sup>th</sup> to December 2020

**Recommendation:**

For information purposes.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'R. Bouchard', written over a light blue horizontal line.

Rodney Bouchard, Manager  
Union Water Supply System Joint Board of Management  
/kmj

## Council/Board Report By Dept-(Computer)



AP5130

Page : 17

Date : Nov 27, 2020

Page 31 of 33

Vendor : 0011450 To PT00000208

Batch : All

Department : All

Cheque Print Date : 19-Nov-2020 To 27-Nov-2020

Bank : 07 To 08

Class : All

Vendor Invoice	Vendor Name Description					Batch Invc Date	Inv Due Date	
G.L. Account	CC1	CC2	CC3	GL Account Name				Amount
<b>DEPARTMENT 0700 Union Water System</b>								
<b>200348 CORPORATION OF THE TOWN OF KINGSVILLE</b>								
300-01000 NO\ TAXES - 1391 UNION AVE						641 18-Nov-2020	19-Nov-2020	
70-5-0700-6750	002072			Property Tax				5,800.00
300-20100 NO\ TAXES - 1615 UNION AVE						641 18-Nov-2020	19-Nov-2020	
70-5-0700-6750	002072			Property Tax				58,511.00
590-02800 NO\ TAXES - 163 CTY RD 34 E						641 18-Nov-2020	19-Nov-2020	
70-5-0700-6750	002072			Property Tax				8,871.00
<b>997507 JDC.CA INC</b>								
16049CW				NETWORK UPGRADES		641 31-Oct-2020	19-Nov-2020	
70-5-0700-7290	002070	002100		Telecommunication Maintenance & Support				3,713.80
<b>Department Totals :</b>								<b>76,895.80</b>



Vendor : 0011450 To PT00000208

Batch : All

Department : All

EFT Paid Date : 19-Nov-2020 To 27-Nov-2020

Bank : 07 To 08

Class : All

Vendor Code	Vendor Name									
Invoice No.	Description					Batch	Inv Date	Inv Due Date		
G.L. Account	CC1	CC2	CC3	GL Account Name					Amount	
DEPARTMENT 0036	A/R - Trade									
150365	ONTARIO CLEAN WATER AGENCY									
INV0000000182	CREDIT - 2019 OPERATING FUND ADJUSTMENT					674	08-May-2020	19-Nov-2020		
70-1-0036-0025	AR-Other								-123,005.50	
Department Totals :									-123,005.50	





Vendor : 0011450 To PT00000208

Batch : All

Department : All

EFT Paid Date : 19-Nov-2020 To 27-Nov-2020

Bank : 07 To 08

Class : All

Vendor Code	Vendor Name		Description		Batch	Invc Date	Invc Due Date	Amount
Invoice No.	CC1	CC2	CC3	GL Account Name				
G.L. Account								
DEPARTMENT 0700	Union Water System							
010103	ASSOCIATED ENGINEERING (ONT) LTD							
528454	SCADA UPGRADES - NOV6				674	17-Nov-2020	19-Nov-2020	
70-7-0700-8780								1,375.10
528455	SCADA UPGRADES - NOV6				674	17-Nov-2020	19-Nov-2020	
70-7-0700-8780								38,840.36
528456	DAF RETROFIT PH 1 - NOV6				674	17-Nov-2020	19-Nov-2020	
70-7-0700-8745	700220							10,053.84
528457	CBS RESERVOIR CFD MODELING - NOV6				674	17-Nov-2020	19-Nov-2020	
70-5-0700-7989	002075							7,215.05
050099	ENBRIDGE GAS INC							
1929770208308	9844.38M3 GAS - RUTHVEN WTP				674	23-Nov-2020	23-Nov-2020	
70-5-0700-7410	002073							3,265.64
080250	HYDRO ONE NETWORKS INC							
200141677460	OCT/20 HYDRO - RUTHVEN WATER TREATMENT PLANT				674	09-Nov-2020	19-Nov-2020	
70-5-0700-7420	002073							85,794.45
200141680692	OCT/20 HYDRO - LOW LIFT				674	09-Nov-2020	19-Nov-2020	
70-5-0700-7420	002073							-27.40
70-5-0700-7420	002073							45,581.09
200152134969	OCT/20 HYDRO - METER#17				674	09-Nov-2020	19-Nov-2020	
70-5-0700-7420	002073							-12.08
70-5-0700-7420	002073							42.93
150365	ONTARIO CLEAN WATER AGENCY							
INV0000000431	AUG/20 OPER&MTCE				674	31-Aug-2020	19-Nov-2020	
70-5-0700-6720	002071							276,874.61
Department Totals :								469,003.59